

ignorant people were thoroughly frightened by the regular flash of the signal light around the city when told that it presaged the coming of a storm.

A more thorough trial of the efficiency of the light in disseminating marine storm signals could not be made, as navigation on Lake Michigan did not open until April 10, and the instrument had to be returned to the Navy Department shortly after that date. But few boats leave Chicago before the opening of navigation, and the owners of these can be warned of approaching storms almost invariably by telephone.

An opportunity did not occur for sending actual warnings, except under the favorable conditions of a cloudy sky; but during the course of several experimental trials it was demonstrated that the penetrating power of the light was 20 to 30 per cent less on a clear night than on a dark, cloudy night. If the moon was shining brightly the range of efficiency was still further diminished. When the sky was clear and there was no moon the natural light from the stars, augmented by the constant glow from the lights of a great city, materially reduced the distance at which the flash could be seen. A slight amount of dust or haze is of course essential, as the beam will be invisible in absolutely pure air.

No test of the efficiency of the search light in the presence of dense fog was made. This was unfortunate, but it is not thought that the flash could be seen at any considerable distance with sufficient distinctness to be understood. A red light could hardly pierce a fog to any material distance.

In the first experiments the light was revolved once a minute, but this was soon found to be entirely too fast, as the flash passed an observer 20 miles away at the rate of 125 miles per minute. A 5-minute revolution was then adopted, but even this was perhaps too fast for good results, as a person in a suburb 20 miles from the Auditorium would barely glimpse the light, or its shadow, as it went by him at a speed of about 25 miles per minute.

Several interesting suggestions were made during the course of the Chicago experiments, none of which seemed entirely practicable. The most ingenious of these was that the prediction be placed in letters about three inches in height on the lens of the search light, as for instance, "Cold wave tonight," and be thrown in glaring letters upon the clouds. This scheme, if at all feasible, would probably not prove by any means effective at a greater distance than 1 mile, but a direct trial was not made.

The present methods of distributing forecasts and warnings are effective and comparatively inexpensive. The Chicago experiments proved that search lights are not useful for this purpose except under the most favorable conditions. At present the great cost of construction, maintenance, and operation of the search lights would preclude their adoption by the Weather Bureau, even if they had been shown to be practicable under all conditions. However, it may be that at some future time the cost of the search lights will be so much reduced and their operation so simplified as to warrant their use by the Weather Bureau, in large cities and at important seaports, for the purpose of immediately disseminating general forecasts and warnings made from the evening charts.

METEOROLOGICAL OBSERVATIONS AT PORT AU PRINCE, HAYTI.

Through the kind cooperation of Prof. T. Scherer of Port au Prince, Hayti, the meteorological observations taken by him at 7 a. m., local time, or 11:49 a. m., Greenwich time, are communicated in manuscript for early publication in the MONTHLY WEATHER REVIEW. By entering these on the

monthly and annual charts, published by the Weather Bureau, we obtain an important extension southeastward of our field of study. The observations are taken 1^h 11^m earlier than those of the Weather Bureau telegraph system. The original reports are in metric measures; the conversions are by the Editor.

The barometer is 119 feet above sea level; its readings have been corrected by Professor Scherer for temperature, elevation, and gravity, this latter correction is -0.064 inch; the thermometers are 6.7 feet above ground; the rain gauge, 7.2 feet above ground.

The position of Port au Prince, Hayti, is latitude $18^{\circ} 34'$ N., longitude $72^{\circ} 21'$ W., or $4^{\text{h}} 49^{\text{m}}$ west of Greenwich. Additional records for this station are published in the annual volume of the Central Meteorological Institute at Vienna.

Observations at Port au Prince, Hayti.

JANUARY, 1898.

Date.	Barometer re- duced.	Tempera- ture.		Rel. humidity.	Wind.		Clouds.			Preceding 24 hours.		
		Air.	Dew-point.		Direction.	Velocity.	Kind.	Amount.	Direction.	Total rain.	Tempera- ture.	
											Max.	Min.
	<i>Inches</i>	°	°	°						<i>Inch.</i>	°	°
1.....	30.02	72.1	67.5	86	.....	0	k	3	se.	0.19	85.1	70.9
2.....	30.12	73.8	71.6	83	e.	2	k	10	n.	0.23	76.6	71.6
3.....	30.17	70.2	58.3	68	se.	11	k	2	ne.	.....	78.3	69.3
4.....	30.10	69.4	57.7	68	se.	11	s	1	.....	.....	83.7	68.4
5.....	30.03	69.8	62.6	79	se.	4	.....	0	.....	.....	83.3	66.6
6.....	30.05	69.8	64.6	84	ese.	2	k	0	.....	.....	87.6	68.5
7.....	30.11	70.3	66.9	90	se.	2	cs, k	1	w.	0.17	88.5	68.2
8.....	30.08	73.9	68.2	83	ese.	19	k	1	.....	.....	89.4	70.9
9.....	30.07	73.4	62.6	70	ese.	7	s	1	.....	.....	89.1	72.1
10.....	30.10	71.8	61.2	87	e.	9	.....	0	.....	.....	86.9	69.3
11.....	30.08	71.8	57.9	87	e.	13	.....	0	.....	.....	88.9	66.7
12.....	30.10	72.1	62.1	76	e.	2	.....	0	.....	.....	87.3	68.2
13.....	30.06	72.0	62.9	74	ese.	11	.....	0	.....	.....	87.4	68.4
14.....	30.04	70.9	61.3	74	e.	9	.....	0	.....	.....	88.9	70.0
15.....	30.06	72.3	60.6	68	e.	11	.....	0	.....	.....	89.8	70.3
16.....	30.04	68.5	64.8	89	.....	0	.....	0	.....	.....	89.2	68.4
17.....	30.02	68.2	62.1	82	ese.	2	cs	0	w.	.....	89.6	66.9
18.....	30.04	75.0	56.1	54	ese.	11	cs	1	w.	.....	89.4	70.0
19.....	30.07	73.6	61.7	67	ese.	13	cs	7	sw., wsw.	.....	88.7	72.0
20.....	30.07	72.0	57.4	62	e.	9	cs	1	.....	.....	88.7	66.6
21.....	30.10	72.9	55.6	65	ese.	11	.....	0	.....	.....	92.5	68.4
22.....	30.06	72.5	62.6	73	e.	7	.....	0	.....	.....	90.5	70.2
23.....	30.11	85.3	57.4	72	se.	7	.....	0	.....	.....	87.8	65.7
24.....	30.10	73.0	61.2	68	se.	13	.....	0	.....	.....	90.5	72.3
25.....	30.06	72.0	61.0	70	e.	11	.....	0	.....	.....	88.5	70.5
26.....	30.06	69.1	61.3	78	ese.	2	.....	1	.....	.....	84.7	67.6
27.....	30.08	72.7	59.7	66	ese.	9	k	1	se.	.....	87.1	71.4
28.....	30.10	73.4	60.6	66	e.	9	k	2	.....	.....	88.9	71.8
29.....	30.10	71.4	64.0	79	se.	2	k	6	ne.	.....	85.6	69.8
30.....	30.10	68.2	63.0	84	se.	4	ks	1	.....	.....	88.7	67.5
31.....	30.09	67.5	60.1	79	ese.	2	.....	0	.....	.....	88.2	66.4
Sum.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.59	.....	.....
Means.	30.08	71.2	61.9	74	.....	7	.....	1.5	.....	.....	86.7	69.8

FEBRUARY, 1898.

1.....	30.06	72.0	61.2	70	ene.	4	.....	0	.....	.....	87.4	70.5
2.....	30.06	71.2	61.3	73	e.	2	k	1	.....	.....	90.0	69.8
3.....	30.11	69.3	63.5	83	.....	0	.....	0	.....	0.06	87.4	67.5
4.....	30.09	67.8	64.6	90	ese.	4	cs	1	.....	.....	86.7	66.9
5.....	30.06	69.4	65.8	89	ene.	2	cs	1	wnw.	.....	86.5	68.5
6.....	30.02	68.5	66.7	94	.....	0	s	1	.....	0.04	84.6	68.4
7.....	30.06	70.9	64.8	81	e.	11	k	10	w.	.....	83.8	68.0
8.....	30.09	71.1	59.4	68	ese.	13	k	1	n.	.....	84.7	69.1
9.....	30.07	68.7	53.6	61	e.	11	ak	1	sw.	.....	85.5	66.7
10.....	30.05	70.2	53.0	54	e.	13	.....	0	.....	.....	88.7	67.8
11.....	30.09	70.0	56.7	64	e.	13	.....	0	.....	.....	87.1	68.0
12.....	30.11	70.0	52.9	56	ese.	7	.....	0	.....	.....	89.4	69.1
13.....	30.08	69.6	57.9	68	e.	4	k	8	nnw.	.....	86.7	68.4
14.....	30.07	71.4	57.9	64	e.	11	ck, k	6	w.	.....	87.4	69.8
15.....	30.06	70.7	56.8	65	e.	2	k	2	nw.	.....	88.2	69.8
16.....	30.06	70.9	56.8	62	e.	2	k	4	n.	.....	92.5	68.0
17.....	30.06	67.6	58.6	64	.....	0	.....	0	.....	.....	87.8	67.1
18.....	30.06	71.8	58.6	65	se.	2	k	1	ene.	.....	88.5	70.2
19.....	30.02	68.2	63.5	81	e.	2	.....	0	.....	.....	89.8	67.6
20.....	30.01	68.5	66.6	83	.....	0	.....	0	.....	0.08	87.4	67.5
21.....	30.00	70.9	70.0	92	.....	0	k	5	ne.	0.49	86.0	68.4
22.....	29.98	66.2	64.2	94	se.	2	.....	0	.....	.....	85.3	64.8
23.....	30.00	68.7	62.4	82	.....	0	k	1	.....	0.89	88.0	66.9
24.....	30.04	69.8	66.2	89	.....	0	k	7	ne.	0.20	88.0	66.0
25.....	30.03	66.7	63.7	85	.....	0	ek	22	.....	0.38	85.1	64.9
26.....	30.02	69.8	63.5	82	ese.	4	ek	7	swsw.	.....	86.0	67.5
27.....	30.00	69.8	62.1	77	ese.	2	.....	1	.....	0.02	85.1	67.1
28.....	29.94	69.3	67.8	85	e.	4	.....	0	.....	0.53	85.8	67.8
Sum.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.69	.....	.....
Means.	30.04	69.6	61.2	76.1	.....	4.3	.....	.....	.....	.....	87.3	68.7